

INFORMATION ABOUT LAND DESCRIPTIONS

A "Land Description" is how a tract or parcel of land is delineated, such that the description shows exactly where it is located, how it is bounded, and how many acres it contains. This description is done in terms that are legally accepted and defined.

Most commonly, land is described using a grid system known as the Public Land Survey System (PLSS). This is most effective with rectangular shaped tracts. Odd shaped tracts can be described using Metes and Bounds. Both are explained here.

Land Description using Public Land Survey System (PLSS)

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Figure 1: How Sections are Numbered

The Public Land Survey System (PLSS) or the Rectangular Survey System is used for over half of the United States. Each grid cell represents approximately 36 square miles. The following is a legal description of a tract of land using the PLSS :

Example 1: *W 1/2 of the NW 1/4 of the SE 1/4 of the SW 1/4 of the SE, Sec 24, Twp 12N, Rng 17E ... that is "The west half of the Northwest Quarter of the Southeast Quarter of the Southwest Quarter of the Southeast Quarter of Section 24, Township 12 North, Range 17 East."*

To understand this legal description, here's a brief primer on the PLSS grid system: In creating the PLSS the government divided the land into Townships, each of which was to be 36 miles square (6miles tall and 6 miles wide). These townships would contain 36 Sections, each a mile square (see figure 1). These townships were to be oriented true to North/South, but because lines of true north eventually converge at the North Pole, it was impossible to keep the townships oriented and a square 36 miles. Because of this, Townships are rarely truly square. On the north and west side of townships there are often tracts of land with unusual sizes. These are referred to as Government Lots or Fractional 40's and 80's. What they were called at the discretions of the surveyors who originally did the land descriptions.

The location of a township is described by its position in relation to starting lines called Base Lines and Principal Meridians. A Township is identified by a Township number based on how far north of south it is from the Base Line, and a Range number based on how far east or west it is from the Principal Meridian (see figure 2). So a Township 3 positions north of the Base Line and 3 positions west of the Principal Meridian is referred to as "T3N R4W".

Figure 2: Township and Ranges

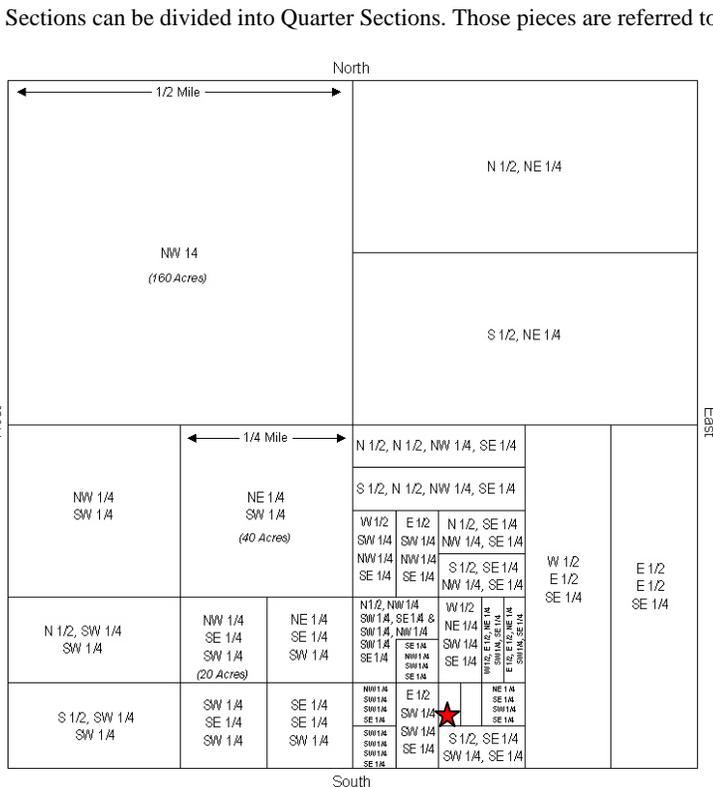
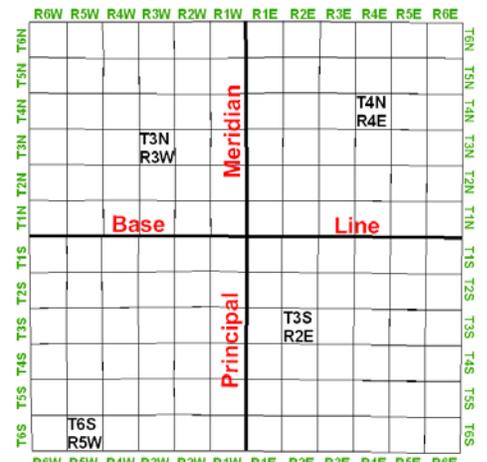


Figure 3: Section Divisions

Sections can be divided into Quarter Sections. Those pieces are referred to by their quadrant direction (i.e., NE, NW, SE, or SW 1/4). A Quarter Section of land represents approximately 160 acres and measures approximately 1/2 mile on a side (see figure 3). Quarter sections can be further broken down into Quarter Quarter Sections, each piece being referred to by its quadrant direction, in reference to its parent division (see lower right figure 3). Divisions can also be made by halves, and are referred to by N, S, E, or W 1/2. By this method, land can be subdivided and referenced in many ways. Figure 3 shows several different divisions possible and their descriptions.

Reading the legal description back to front is usually the easiest way to understand and follow it. Let's try Example 1 from above. First we would find the Township by its township and range information, and the Section within it, based on its number. In the description, the last part is SE1/4, which means we look in the SE1/4 of the Section. Next is SW1/4, so we look in the SW1/4, of the SE1/4, of the Section. Then we look in the SE1/4 of the SW1/4 of the SW1/4, and the NW1/4 of that part. Finally to describe the parcel we want, we look to the W1/2 of the NW1/4 of the SE1/4 of the SW1/4 of the SW1/4 of the section. That will get us the parcel marked with a red star in figure 3.

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Land Description using Metes and Bounds

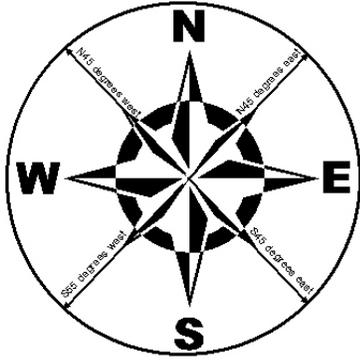


Figure 4; Angles of Movement

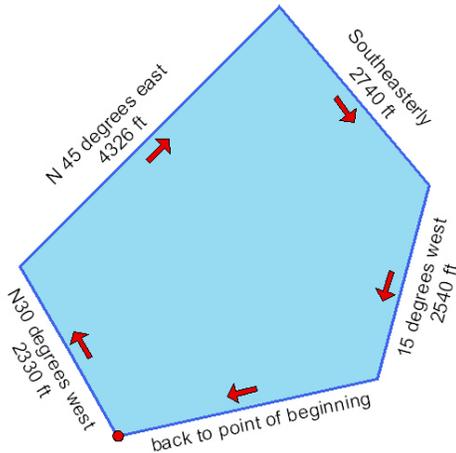


Figure 5: A Tract Described by Metes & Bounds

Metes and Bounds descriptions are usually for odd shaped tracts of land that cannot be easily described using the PLSS description. You can describe any tract using metes and bounds, but it's simpler to use PLSS if possible. Metes and bounds descriptions use angles of direction and distance of travel to describe a bounding line around a tract of land. The description will always begin and end at the same point. When trying to read a Metes and bounds-style land description, do not interpret it in reverse like a PLSS, but rather in the order it is listed.

Angles in a Metes and Bounds description are given in degrees, relating to the compass directions. The four main directions, North, South, East, and West are used, and angles in between those directions are given in degrees off of North and South. Figure 4 shows several examples of directions of travel from the center of the circle, and how they would be listed in a Metes and Bounds description. Notice that the familiar direction "Southeast" can be shown as 'SE' or as S45 degrees east'.

Figure 5 shows an odd shaped tract of land, and how it would be described using metes and bounds. The description for this tract would read:

Beginning at the point of beginning, thence N30 degrees west – 2330 ft, thence N45 degrees east – 4326 ft, thence Southeasterly 2740 ft, thence S15 degrees west 2540 ft, thence Southwesterly back to the point of beginning, containing 335.78 acres.

The rectangular parcel used in an example in Figure 3, could be described as:

From the center of the SW1/4 of Section 24, Twp 12N, Rng 17E, proceed 660 ft south, and 495 ft west to Point of Beginning, thence south 330 ft, thence west 165 ft, thence north 330 ft, thence east 165 ft back to point of beginning, and containing 1.25 acres and being the part W1/2 of the NW1/4 of the SE1/4 of the SW1/4 of the SE1/4, Sec 24, Twp 12N, Rng 17E.

Public and Private Access to Water

A body of water is referred to as Meandered if the landowners on adjoining land pay taxes only on the adjoining land not for the land under the water. Generally, but not always, meandered water is public water with legal public access (i.e. access without trespassing on private land) for recreation such as hunting, trapping, and fishing, within the regulations of State and Federal Laws.

How can you tell if a body of water is Meandered? Usually, if there are no government lots adjoining the water body, then that water is privately owned (i.e., NOT meandered) and the landowner(s) control the recreational activities on that water, within the regulations of State and Federal Laws. If the water is deemed navigable, then other rulings may apply as well. If a government lot adjoins the body of water, then it is meandered.

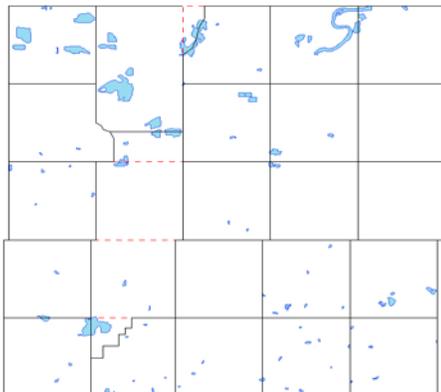


Figure 7: Civil and Congressional Townships

Civil and Congressional Townships

Civil (or Incorporated or Political) township boundaries may not correspond a township described by the PLS System. Civil townships may follow County boundaries, water features or other delineations, different from the square Congressional Townships defined by the PLSS. Civil townships may contain all or part of several different congressional townships. Figure 7 illustrates examples of this. The red dotted lines show where congressional township boundaries exist and are not followed by the civil township boundaries. The civil township boundaries are in dark grey. The light blue areas represent bodies of water.